

ADD S5.224A The use of the bands 149.9 - 150.05 MHz and 399.9 - 400.05 MHz by the mobile-satellite service (Earth-to-space) is limited to the land mobile-satellite service (Earth-to-space) until 1 January 2015.

ADD S5.224B The allocation of the bands 149.9 - 150.05 MHz and 399.9 - 400.05 MHz to the radionavigation-satellite service shall be effective until 1 January 2015.

MOD S5.237 *Additional allocation:* in the Congo, Eritrea, Ethiopia, Gambia, Guinea, Libya, Malawi, Mali, Senegal, Sierra Leone, Somalia, Tanzania and Zimbabwe, the band 174 - 223 MHz is also allocated to the fixed and mobile services on a secondary basis.

SUP S5.244

MOD S5.259 *Additional allocation:* in Germany, Austria, Cyprus, the Republic of Korea, Denmark, Egypt, Spain, France, Greece, Israel, Italy, Japan, Jordan, Malta, Morocco, Monaco, Norway, the Netherlands, Syria and Sweden, the band 328.6 - 335.4 MHz is also allocated to the mobile service on a secondary basis, subject to agreement obtained under No. S9.21. In order to ensure that harmful interference is not caused to stations of the aeronautical radionavigation service, stations of the mobile service shall not be introduced in the band until it is no longer required for the aeronautical radionavigation service by any administration which may be identified in the application of the procedure invoked under No. S9.21.

MOD

MHz
322 - 400.15

Allocation to Services		
Region 1	Region 2	Region 3
399.9 - 400.05	MOBILE-SATELLITE (Earth-to-space) MOD S5.209 ADD S5.224A RADIONAVIGATION-SATELLITE S5.222 S5.260 ADD S5.224B MOD S5.220	

MOD

MHz
400.15 – 410

Allocation to Services		
Region 1	Region 2	Region 3
401 - 402	EARTH EXPLORATION-SATELLITE (Earth-to-space) METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (Earth-to-space) SPACE OPERATION (space-to-Earth) Fixed Mobile except aeronautical mobile	
402 - 403	EARTH EXPLORATION-SATELLITE (Earth-to-space) METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (Earth-to-space) Fixed Mobile except aeronautical mobile	

MOD

MHz
410 – 420

Allocation to Services		
Region 1	Region 2	Region 3
410 – 420	FIXED MOBILE except aeronautical mobile SPACE RESEARCH (space-to-space) MOD S5.268	

MOD S5.268

Use of the band 410 - 420 MHz by the space research service is limited to communications within 5 km of an orbiting, manned space vehicle. The power flux-density at the surface of the Earth produced by emissions from extra-vehicular activities shall not exceed -153 dB(W/m²) for $0^\circ \leq \Phi \leq 5^\circ$, $-153 + 0.077 (\Phi - 5)$ dB(W/m²) for $5^\circ \leq \Phi \leq 70^\circ$ and -148 dB(W/m²) for $70^\circ \leq \Phi \leq 90^\circ$, where Φ is the angle of arrival of the radio-frequency wave and the reference bandwidth is 4 kHz. No. S4.10 does not apply to extra-vehicular activities. In this frequency band the space research (space-to-space) service shall not claim protection from, nor constrain the use and development of, stations of the fixed and mobile service.

- MOD S5.271** *Additional allocation:* in Azerbaijan, Belarus, China, Estonia, India, Latvia, Lithuania, Kyrgyzstan, Turkmenistan and Ukraine, the band 420 - 460 MHz is also allocated to the aeronautical radionavigation service (radio altimeters) on a secondary basis.
- MOD S5.275** *Additional allocation:* in Bosnia and Herzegovina, Croatia, Estonia, Finland, Latvia, The Former Yugoslav Republic of Macedonia, Libya, Slovenia and Yugoslavia, the bands 430 - 432 MHz and 438 - 440 MHz are also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis.
- MOD S5.276** *Additional allocation:* in Afghanistan, Algeria, Saudi Arabia, Bahrain, Bangladesh, Brunei Darussalam, Burkina Faso, Burundi, Egypt, the United Arab Emirates, Ecuador, Eritrea, Ethiopia, Greece, Guinea, India, Indonesia, the Islamic Republic of Iran, Iraq, Israel, Italy, Jordan, Kenya, Kuwait, Lebanon, Libya, Liechtenstein, Malaysia, Malta, Nigeria, Oman, Pakistan, the Philippines, Qatar, Syria, Democratic People's Republic of Korea, Singapore, Somalia, Switzerland, Tanzania, Thailand, Togo, Turkey and Yemen, the band 430 - 440 MHz is also allocated to the fixed service on a primary basis and the bands 430 - 435 MHz and 438 - 440 MHz are also allocated to the mobile, except aeronautical mobile, service on a primary basis.
- MOD S5.277** *Additional allocation:* in Angola, Armenia, Azerbaijan, Belarus, Cameroon, the Congo, Djibouti, Gabon, Hungary, Kazakstan, Latvia, Mali, Moldova, Mongolia, Niger, Uzbekistan, Pakistan, Poland, Kyrgyzstan, Slovakia, the Czech Republic, Romania, Russia, Rwanda, Tajikistan, Chad, Turkmenistan and Ukraine, the band 430 - 440 MHz is also allocated to the fixed service on a primary basis.

MHz
450 – 460

Allocation to Services		
Region 1	Region 2	Region 3
450 – 455 FIXED MOBILE MOD S5.209 S5.271 S5.286 MOD S5.286A MOD S5.286B MOD S5.286C ADD S5.286D ADD S5.286E		
455 – 456 FIXED MOBILE MOD S5.209 S5.271 MOD S5.286A MOD S5.286B MOD S5.286C ADD S5.286E	455 – 456 FIXED MOBILE MOBILE-SATELLITE (Earth-to-space) MOD S5.209 S5.271 MOD S5.286A MOD S5.286B MOD S5.286C	455 – 456 FIXED MOBILE MOD S5.209 S5.271 MOD S5.286A MOD S5.286B MOD S5.286C ADD S5.286E
456 – 459 FIXED MOBILE S5.271 S5.287 S5.288		
459 – 460 FIXED MOBILE MOD S5.209 S5.271 MOD S5.286A MOD S5.286B MOD S5.286C ADD S5.286E	459 – 460 FIXED MOBILE MOBILE-SATELLITE (Earth-to-space) MOD S5.209 S5.271 MOD S5.286A MOD S5.286B MOD S5.286C	459 – 460 FIXED MOBILE MOD S5.209 S5.271 MOD S5.286A MOD S5.286B MOD S5.286C ADD S5.286E

MOD S5.286A The use of the bands 454 - 456 MHz and 459 - 460 MHz by the mobile-satellite service is subject to coordination under Resolution 46 (Rev.WRC-97)/No. S9.11A.

- MOD S5.286B** The use of the band 454 - 455 MHz in the countries listed in S5.286D, 455 - 456 MHz and 459 - 460 MHz in Region 2, and 454 - 456 MHz and 459 - 460 MHz in the countries listed in S5.286E, by stations in the mobile-satellite service, shall not cause harmful interference to, or claim protection from, stations of the fixed or mobile services operating in accordance with the Table of Frequency Allocations.
- MOD S5.286C** The use of the band 454 - 455 MHz in the countries listed in S5.286D, 455 - 456 MHz and 459 - 460 MHz in Region 2, and 454 - 456 MHz and 459 - 460 MHz in the countries listed in S5.286E, by stations in the mobile-satellite service, shall not constrain the development and use of the fixed and mobile services operating in accordance with the Table of Frequency Allocations.
- ADD S5.286D** *Additional allocation:* in Canada, the United States, Mexico and Panama, the band 454 - 455 MHz is also allocated to the mobile-satellite service (Earth-to-space) on a primary basis.
- ADD S5.286E** *Additional allocation:* in Cape Verde, Indonesia, Nepal, Nigeria and Papua New Guinea, the bands 454 - 456 MHz and 459 - 460 MHz are also allocated to the mobile-satellite (Earth-to-space) service on a primary basis.
- MOD S5.287** In the maritime mobile service, the frequencies 457.525 MHz, 457.550 MHz, 457.575 MHz, 467.525 MHz, 467.550 MHz and 467.575 MHz may be used by on-board communication stations. Where needed, equipment designed for 12.5 kHz channel spacing using also the additional frequencies 457.5375 MHz, 457.5625 MHz, 467.5375 MHz and 467.5625 MHz may be introduced for on-board communications. The use of these frequencies in territorial waters may be subject to the national regulations of the administration concerned. The characteristics of the equipment used shall conform to those specified in Recommendation ITU-R M.1174 (see Resolution COM4-2).
- MOD S5.290** *Different category of service:* in Afghanistan, Armenia, Azerbaijan, Belarus, China, Japan, Kazakhstan, Mongolia, Uzbekistan, Kyrgyzstan, Slovakia, the Czech Republic, Russia, Tajikistan, Turkmenistan and Ukraine, the allocation of the band 460 - 470 MHz to the meteorological-satellite service (space-to-Earth) is on a primary basis (see No. S5.33), subject to agreement obtained under No. S9.21.

MOD

MHz
470 - 890

Allocation to Services		
Region 1	Region 2	Region 3
470 - 790 BROADCASTING	470 - 512 BROADCASTING Fixed Mobile S5.292 S5.293	470 - 585 FIXED MOBILE BROADCASTING S5.291 S5.298
MOD S5.149 S5.294 S5.296 S5.300 S5.302 S5.304 S5.306 S5.311 S5.312 ADD S5.291A		

ADD S5.291A *Additional allocation:* in Germany, Austria, Denmark, Estonia, Finland, Liechtenstein, Norway, Netherlands, the Czech Republic and Switzerland, the band 470 - 494 MHz is also allocated to the radiolocation service on a secondary basis. This use is limited to the operation of wind profiler radars in accordance with Resolution COM5-5 (WRC-97).

MOD S5.296 *Additional allocation:* in Germany, Austria, Belgium, Cyprus, Denmark, Spain, Finland, France, Ireland, Israel, Italy, Libya, Malta, Morocco, Monaco, Norway, the Netherlands, Portugal, Syria, the United Kingdom, Sweden, Switzerland, Swaziland and Tunisia, the band 470 - 790 MHz is also allocated on a secondary basis to the land mobile service, intended for applications ancillary to broadcasting. Stations of the land mobile service in the countries mentioned in this footnote, shall not cause harmful interference to existing or planned stations operating in accordance with the Table of Frequency Allocations in countries other than those listed in this footnote.

SUP S5.310

- MOD S5.312** *Additional allocation:* in Armenia, Azerbaijan, Belarus, Bulgaria, Hungary, Kazakstan, Latvia, Moldova, Mongolia, Uzbekistan, Poland, Kyrgyzstan, Slovakia, the Czech Republic, Romania, Russia, Tajikistan, Turkmenistan and Ukraine, the band 645 - 862 MHz is also allocated to the aeronautical radionavigation service on a primary basis.
- SUP S5.313**
- MOD S5.314** *Additional allocation:* in Austria, Italy, Uzbekistan, the United Kingdom and Swaziland, the band 790 - 862 MHz is also allocated to the land mobile service on a secondary basis.
- MOD S5.316** *Additional allocation:* in Germany, Bosnia and Herzegovina, Burkina Faso, Cameroon, Côte d'Ivoire, Croatia, Denmark, Egypt, Finland, Israel, Kenya, The Former Yugoslav Republic of Macedonia, Libya, Liechtenstein, Monaco, Norway, the Netherlands, Portugal, Syria, Sweden, Switzerland and Yugoslavia, the band 790 - 830 MHz, and in these same countries and in Spain, France, Gabon and Malta, the band 830 - 862 MHz, are also allocated to the mobile, except aeronautical mobile, service on a primary basis. However, stations of the mobile service in the countries mentioned in connection with each band referred to in this footnote shall not cause harmful interference to, or claim protection from, stations of services operating in accordance with the Table in countries other than those mentioned in connection with the band.
- MOD S5.322** In Region 1, in the band 862 - 960 MHz, stations of the broadcasting service shall be operated only in the African Broadcasting Area (see Nos. S5.10 to S5.13) excluding Algeria, Egypt, Spain, Libya, Morocco, Nigeria, South Africa, Tanzania and Zimbabwe, subject to agreement obtained under No. S9.21.
- MOD S5.323** *Additional allocation:* in Armenia, Azerbaijan, Belarus, Bulgaria, Hungary, Kazakstan, Latvia, Moldova, Mongolia, Uzbekistan, Poland, Kyrgyzstan, Slovakia, the Czech Republic, Romania, Russia, Tajikistan, Turkmenistan and Ukraine, the band 862 - 960 MHz is also allocated to the aeronautical radionavigation service on a primary basis. Such use is subject to agreement obtained under Article 14/S9.21 with administrations concerned and limited to ground-based radiobeacons in operation on 27 October 1997 until the end of its lifetime.

MOD

MHz
890 – 1 240

Allocation to Services		
Region 1	Region 2	Region 3
1 215 – 1 240	RADIOLOCATION RADIONAVIGATION-SATELLITE (space-to-Earth) EARTH EXPLORATION-SATELLITE (active) SPACE RESEARCH (active) S5.329 S5.330 S5.331 S5.332	

MOD S5.330

Additional allocation: in Angola, Saudi Arabia, Bahrain, Bangladesh, Cameroon, China, the United Arab Emirates, Eritrea, Ethiopia, Guyana, India, Indonesia, the Islamic Republic of Iran, Iraq, Israel, Japan, Jordan, Kuwait, Lebanon, Libya, Morocco, Mozambique, Nepal, Nigeria, Pakistan, the Philippines, Qatar, Syria, Somalia, Sudan, Sri Lanka, Chad, Togo and Yemen, the band 1 215 - 1 300 MHz is also allocated to the fixed and mobile services on a primary basis.

ADD S5.332

In the band 1 215 - 1 300 MHz, active spaceborne sensors in the earth exploration-satellite and space research services shall not cause harmful interference to, claim protection from, or otherwise impose constraints on operation or development of the radiolocation service, the radionavigation-satellite service and other services allocated on a primary basis.

SUP S5.333

MOD

MHz
1 240 – 1 452

Allocation to Services						
Region 1	Region 2			Region 3		
1 240 – 1 260	RADIOLOCATION					
	RADIONAVIGATION-SATELLITE (space-to-Earth)					
	EARTH EXPLORATION-SATELLITE (active)					
	SPACE RESEARCH (active)					
	Amateur					
	S5.329	S5.330	S5.331	S5.332	S5.334	S5.335
1 260 – 1 300	RADIOLOCATION					
	EARTH EXPLORATION-SATELLITE (active)					
	SPACE RESEARCH (active)					
	Amateur					
	S5.282	S5.330	S5.331	S5.332		
	S5.334	S5.335				

ADD S5.335 In Canada, the United States and Viet Nam in the band 1 240 - 1 300 MHz, active spaceborne sensors in the earth exploration-satellite and space research services shall not cause interference to, claim protection from, or otherwise impose constraints on operation or development of the aeronautical radionavigation service.

MOD S5.338 In Azerbaijan, Bulgaria, Mongolia, Poland, Kyrgyzstan, Slovakia, the Czech Republic, Romania, Turkmenistan and Ukraine, the existing installations of the radionavigation service may continue to operate in the band 1 350 - 1 400 MHz.

MOD S5.340

All emissions are prohibited in the following bands:

1 400 - 1 427 MHz,
2 690 - 2 700 MHz except those provided for by Nos. S5.421 and S5.422,
10.68 - 10.7 GHz except those provided for by No. S5.483,
15.35 - 15.4 GHz except those provided for by No. S5.511,
23.6 - 24 GHz,
31.3 - 31.5 GHz,
31.5 - 31.8 GHz in Region 2,
48.94 - 49.04 GHz from airborne stations,
50.2 - 50.4 GHz¹ except those provided for by No. S5.555A,
52.6 - 54.25 GHz,
86 - 92 GHz,
105 - 116 GHz,
140.69 - 140.98 GHz from airborne stations and from space stations in the
space-to-Earth direction,
182 - 185 GHz except those provided for by No. S5.563,
217 - 231 GHz.

¹ The allocation to the earth exploration-satellite service (passive) and the space research service (passive) in the band 50.2 - 50.4 GHz should not impose undue constraints on the use of the adjacent bands by the primary allocated services in those bands.

MOD S5.347

Different category of service: in Bangladesh, Bosnia and Herzegovina, Botswana, Bulgaria, Burkina Faso, Cuba, Denmark, Egypt, Greece, Ireland, Italy, Jordan, Kenya, Mozambique, Portugal, Sri Lanka, Swaziland, Yemen, Yugoslavia and Zimbabwe, the allocation of the band 1 452 - 1 492 MHz to the broadcasting-satellite service and the broadcasting service is on a secondary basis until 1 April 2007.

MOD

MHz
1 452 – 1 530

Allocation to Services		
Region 1	Region 2	Region 3
1 525 – 1 530 SPACE OPERATION (space-to-Earth) FIXED MOBILE-SATELLITE (space-to-Earth) Earth Exploration-Satellite Mobile except aeronautical mobile S5.349 S5.341 S5.342 S5.350 S5.351 ADD S5.352A S5.354	1 525 – 1 530 SPACE OPERATION (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) Earth Exploration-Satellite Fixed Mobile S5.343 S5.341 S5.351 S5.354	1 525 – 1 530 SPACE OPERATION (space-to-Earth) FIXED MOBILE-SATELLITE (space-to-Earth) Earth Exploration-Satellite Mobile S5.349 S5.341 S5.351 ADD S5.352A S5.354

MOD S5.349 *Different category of service:* in Saudi Arabia, Azerbaijan, Bahrain, Bosnia and Herzegovina, Cameroon, Egypt, the United Arab Emirates, France, the Islamic Republic of Iran, Iraq, Israel, Kazakstan, Kuwait, The Former Yugoslav Republic of Macedonia, Lebanon, Morocco, Mongolia, Oman, Qatar, Syria, Kyrgyzstan, Romania, Turkmenistan, Ukraine, Yemen and Yugoslavia, the allocation of the band 1 525 - 1 530 MHz to the mobile, except aeronautical mobile, service is on a primary basis (see No. S5.33).

MOD S5.350 *Additional allocation:* in Azerbaijan, Kyrgyzstan, Turkmenistan and Ukraine, the band 1 525 - 1 530 MHz is also allocated to the aeronautical mobile service on a primary basis.

SUP S5.352

ADD S5.352A In the band 1 525 - 1 530 MHz, stations in the mobile-satellite service, except stations in the maritime mobile-satellite service, shall not cause harmful interference to, or claim protection from, stations of the fixed service in France and French overseas territories in Region 3, Algeria, Saudi Arabia, Egypt, Guinea, India, Israel, Italy, Jordan, Kuwait, Mali, Malta, Morocco, Mauritania, Nigeria, Oman, Pakistan, Philippines, Qatar, Syria, Tanzania, Viet Nam and Yemen notified prior to 1 April 1998.

MOD

MHz
1 530 – 1 535

Allocation to Services		
Region 1	Region 2	Region 3
1 530 – 1 533 SPACE OPERATION (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) ADD S5.353A Earth Exploration-Satellite Fixed Mobile except aeronautical mobile S5.341 S5.342 S5.351 S5.354	1 530 – 1 533 SPACE OPERATION (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) ADD S5.353A Earth Exploration-Satellite Fixed Mobile S5.343 S5.341 S5.351 S5.354	
1 533 – 1 535 SPACE OPERATION (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) ADD S5.353A Earth Exploration-Satellite Fixed Mobile except aeronautical mobile S5.341 S5.342 S5.351 S5.354	1 533 – 1 535 SPACE OPERATION (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) ADD S5.353A Earth Exploration-Satellite Fixed Mobile S5.343 S5.341 S5.351 S5.354	

SUP S5.353

ADD S5.353A In applying the procedures of No. S9.11A to the mobile-satellite service in the bands 1 530 - 1 544 MHz and 1 626.5 - 1 645.5 MHz, priority shall be given to accommodating the spectrum requirements for distress, urgency and safety communications of the Global Maritime Distress and Safety System (GMDSS). Maritime mobile-satellite distress, urgency and safety communications shall have priority access and immediate availability over all other mobile satellite communications operating within a network. Mobile-satellite systems shall not cause unacceptable interference to, or claim protection from, distress, urgency and safety communications of the GMDSS. Account shall be taken of the priority of safety-related communications in the other mobile-satellite services. (See Resolution COM5-24.)

MOD

MHz
1 535 - 1 610.6

Allocation to Services		
Region 1	Region 2	Region 3
1 535 - 1 544	MOBILE-SATELLITE (space-to-Earth) S5.341 S5.351 ADD S5.353A S5.354 S5.355	
1 544 - 1 545	MOBILE-SATELLITE (space-to-Earth) S5.341 S5.354 S5.355 S5.356	
1 545 - 1 555	MOBILE-SATELLITE (space-to-Earth) S5.341 S5.351 S5.354 S5.355 S5.357 S5.359 ADD S5.362A	
1 555 - 1 559	MOBILE-SATELLITE (space-to-Earth) S5.341 S5.351 S5.354 S5.355 S5.359 ADD S5.362B	

MOD S5.355 *Additional allocation:* in Bahrain, Bangladesh, the Congo, Egypt, the United Arab Emirates, Eritrea, Ethiopia, the Islamic Republic of Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Malta, Morocco, Oman, Qatar, Syria, Somalia, Sudan, Sri Lanka, Chad, Togo, Yemen and Zambia, the bands 1 540 - 1 645.5 MHz and 1 646.5 - 1 660 MHz are also allocated to the fixed service on a secondary basis.

NOC S5.356

SUP S5.358

SUP S5.360

SUP S5.361

SUP S5.362

ADD S5.362A

In applying the procedures of No. S9.11A to the mobile-satellite service in the bands 1 545 - 1 555 MHz and 1 646.5 - 1 656.5 MHz, priority shall be given to accommodating the spectrum requirements of the aeronautical mobile-satellite (R) service (AMS(R)S) providing transmission of messages with priority 1 to 6 in Article S44. AMS(R)S communications with priority 1 to 6 in Article S44 shall have priority access and immediate availability, by pre-emption if necessary, over all other mobile-satellite communications operating within a network. Mobile-satellite systems shall not cause unacceptable interference to, or claim protection from, AMS(R)S communications with priority 1 to 6 in Article S44. Account shall be taken of the priority of safety-related communications in the other mobile-satellite services. (See Resolution COM5-24.)

ADD S5.362B

In the United States, in the bands 1 555 - 1 559 MHz and 1 656.5 - 1 660.5 MHz, the aeronautical mobile-satellite (R) service (AMS(R)S) shall have priority access and immediate availability, by pre-emption if necessary, over all other mobile-satellite communications operating within a network. Mobile-satellite systems shall not cause unacceptable interference to, or claim protection from, AMS(R)S communications with priority 1 to 6 in Article S44. Account shall be taken of the priority of safety-related communications in the other mobile-satellite services.

MOD S5.369

Different category of service: in Angola, Australia, Burundi, China, Côte d'Ivoire, Eritrea, Ethiopia, India, the Islamic Republic of Iran, Israel, Jordan, Lebanon, Liberia, Libya, Madagascar, Mali, Pakistan, Papua New Guinea, Syria, Senegal, Sudan, Swaziland, Togo, Zaire and Zambia, the allocation of the band 1 610 - 1 626.5 MHz to the radiodetermination-satellite service (Earth-to-space) is on a primary basis (see No. S5.33) subject to agreement obtained under No. S9.21 from countries not listed in this provision.

MOD

MHz

1 610.6 - 1 631.5

Allocation to Services		
Region 1	Region 2	Region 3
1 626.5 - 1 631.5 MOBILE-SATELLITE (Earth-to-space) S5.341 S5.351 S5.354 S5.355 S5.359 ADD S5.353A	1 626.5 - 1 631.5 MOBILE-SATELLITE (Earth-to-space) S5.341 S5.351 S5.354 S5.355 S5.359 ADD S5.353A	

MOD

MHz
1 631.5 – 1 670

Allocation to Services		
Region 1	Region 2	Region 3
1 631.5 – 1 636.5	MOBILE-SATELLITE (Earth-to-space) S5.341 S5.351 S5.354 S5.355 S5.359 MOD S5.374 ADD S5.353A	
1 636.5 – 1 645.5	MOBILE-SATELLITE (Earth-to-space) S5.341 S5.351 ADD S5.353A S5.354 S5.355 S5.359	
1 645.5 – 1 646.5	MOBILE-SATELLITE (Earth-to-space) S5.341 S5.354 S5.375	
1 646.5 – 1 656.5	MOBILE-SATELLITE (Earth-to-space) ADD S5.362A S5.341 S5.351 S5.354 S5.355 S5.359 S5.376	
1 656.5 – 1 660	MOBILE-SATELLITE (Earth-to-space) S5.341 S5.351 S5.354 S5.355 S5.359 MOD S5.374 ADD S5.362B	
1 660 – 1 660.5	MOBILE-SATELLITE (Earth-to-space) RADIO ASTRONOMY MOD S5.149 S5.341 S5.351 S5.354 ADD S5.376A ADD S5.362B	

SUP S5.373A

MOD S5.374 Mobile earth stations in the mobile-satellite service operating in the bands 1 631.5 - 1 634.5 MHz and 1 656.5 - 1 660 MHz shall not cause harmful interference to stations in the fixed service operating in the countries listed in No. S5.359.

NOC S5.375

ADD S5.376A Mobile earth stations operating in the band 1 660.0 - 1 660.5 MHz shall not cause harmful interference to stations in the radio astronomy service.

MOD S5.381 *Additional allocation:* in Afghanistan, Costa Rica, Cuba, India, the Islamic Republic of Iran, Malaysia, Pakistan and Sri Lanka, the band 1 690 - 1 700 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis.

- MOD S5.382** *Different category of service:* in Saudi Arabia, Armenia, Austria, Azerbaijan, Bahrain, Belarus, Bosnia and Herzegovina, Bulgaria, the Congo, Egypt, the United Arab Emirates, Eritrea, Ethiopia, Guinea, Hungary, Iraq, Israel, Jordan, Kazakhstan, Kuwait, The Former Yugoslav Republic of Macedonia, Lebanon, Mauritania, Moldova, Mongolia, Oman, Uzbekistan, Poland, Qatar, Syria, Kyrgyzstan, Romania, Russia, Somalia, Tajikistan, Tanzania, Turkmenistan, Ukraine, Yemen and Yugoslavia, the allocation of the band 1 690 - 1 700 MHz to the fixed and mobile, except aeronautical mobile, services is on a primary basis (see No. S5.33), and in the Democratic People's Republic of Korea, the allocation of the band 1 690 - 1 700 MHz to the fixed service is on a primary basis (see No. S5.33) and to the mobile, except aeronautical mobile, service is on a secondary basis.
- MOD S5.384** *Additional allocation:* in India, Indonesia and Japan, the band 1 700 - 1 710 MHz is also allocated to the space research service (space-to-Earth) on a primary basis.
- MOD S5.387** *Additional allocation:* in Armenia, Azerbaijan, Belarus, Kazakhstan, Mali, Mongolia, Uzbekistan, Kyrgyzstan, Slovakia, the Czech Republic, Romania, Russia, Tajikistan, Turkmenistan and Ukraine, the band 1 770 - 1 790 MHz is also allocated to the meteorological-satellite service on a primary basis, subject to agreement obtained under No. S9.21.
- MOD S5.388** The bands 1 885 - 2 025 MHz and 2 110 - 2 200 MHz are intended for use, on a worldwide basis, by administrations wishing to implement International Mobile Telecommunications-2000 (IMT-2000). Such use does not preclude the use of these bands by other services to which these bands are allocated. The bands should be made available for IMT-2000 in accordance with Resolution 212 (Rev.WRC-97).

NOC

MHz
1 700 – 2 010

Allocation to Services			
Region 1	Region 2		Region 3
1 980 – 2 010	FIXED		
	MOBILE		
	MOBILE-SATELLITE (Earth-to-space)		
	S5.388 S5.389A S5.389B S5.389F		

MHz 2 010 - 2 170			
Allocation to Services			
	Region 1	Region 2	Region 3
MOD	2 010 - 2 025 FIXED MOBILE S5.388	2 010 - 2 025 FIXED MOBILE MOBILE-SATELLITE (Earth-to-space) S5.388 MOD S5.389C S5.389D S5.389E ADD S5.390	2 010 - 2 025 FIXED MOBILE S5.388
	...		
MOD	2 160 - 2 170 FIXED MOBILE S5.388 S5.392A	2 160 - 2 170 FIXED MOBILE MOBILE-SATELLITE (space-to-Earth) S5.388 MOD S5.389C S5.389D S5.389E ADD S5.390	2 160 - 2 170 FIXED MOBILE S5.388

MOD S5.389C The use of the bands 2 010 - 2 025 MHz and 2 160 - 2 170 MHz in Region 2 by the mobile-satellite service shall not commence before 1 January 2002 and is subject to coordination under Resolution 46 (Rev.WRC-97)/No. S9.11A and to the provisions of Resolution 716 (WRC-95).

ADD S5.390 In Argentina, Brazil, Chile, Colombia, Cuba, Ecuador and Suriname, the use of the bands 2 010 - 2 025 MHz and 2 160 - 2 170 MHz by the mobile-satellite services shall not cause harmful interference to stations in the fixed and mobile services before 1 January 2005. After this date the use of these bands is subject to coordination under Resolution 46 (Rev.WRC-97)/No. S9.11A and to the provisions of Resolution 716 (WRC-95).

MOD S5.391 In making assignments to the mobile service in the bands 2 025 - 2 110 MHz and 2 200 - 2 290 MHz, administrations shall not introduce high-density mobile systems, as described in Recommendation ITU-R SA.1154, and shall take this Recommendation into account for the introduction of any other type of mobile system.

NOC

MHz
2 170 – 2 450

Allocation to Services		
Region 1	Region 2	Region 3
2 170 – 2 200	FIXED MOBILE MOBILE-SATELLITE (space-to-Earth) S5.388 S5.389A S5.389F S5.392A	

MOD S5.393

Additional allocation: in the United States, India and Mexico, the band 2 310 - 2 360 MHz is also allocated to the broadcasting-satellite service (sound) and complementary terrestrial sound broadcasting service on a primary basis. Such use is limited to digital audio broadcasting and is subject to the provisions of Resolution 528 (WARC-92).

MOD S5.400

Different category of service: in Angola, Australia, Bangladesh, Burundi, China, Eritrea, Ethiopia, India, the Islamic Republic of Iran, Jordan, Lebanon, Liberia, Libya, Madagascar, Mali, Pakistan, Papua New Guinea, Syria, Sudan, Swaziland, Togo, Zaire and Zambia, the allocation of the band 2 483.5 - 2 500 MHz to the radiodetermination-satellite service (space-to-Earth) is on a primary basis (see No. S5.33) subject to agreement obtained under No. S9.21 from countries not listed in this provision.

MOD

MHz
2 450 – 2 520

Allocation to Services		
Region 1	Region 2	Region 3
2 500 – 2 520 FIXED S5.409 S5.410 S5.411 MOBILE except aeronautical mobile MOBILE-SATELLITE (space-to-Earth) S5.403 S5.405 S5.407 S5.408 S5.412 S5.414	2 500 – 2 520 FIXED S5.409 S5.411 FIXED-SATELLITE (space-to-Earth) S5.415 MOBILE except aeronautical mobile MOBILE-SATELLITE (space-to-Earth) S5.403 S5.404 S5.407 S5.414	2 500 – 2 520 FIXED S5.409 S5.411 FIXED-SATELLITE (space-to-Earth) S5.415 MOBILE except aeronautical mobile MOBILE-SATELLITE (space-to-Earth) S5.403 S5.404 S5.407 S5.414 S5.403A

ADD S5.403A *Additional allocation:* in Japan, subject to agreement obtained under No. S9.21, the band 2 515 - 2 535 MHz may also be used for the aeronautical mobile-satellite service (space-to-Earth) for operation limited to within its national boundary from 1 January 2000.

MOD S5.412 *Alternative allocation:* in Azerbaijan, Bulgaria, Kyrgyzstan, Turkmenistan and Ukraine, the band 2 500 - 2 690 MHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis.

MOD

MHz
2 520 - 2 670

Allocation to Services		
Region 1	Region 2	Region 3
2 520 – 2 655 FIXED S5.409 S5.410 S5.411 MOBILE except aeronautical mobile BROADCASTING- SATELLITE S5.413 S5.416	2 520 – 2 655 FIXED S5.409 S5.411 FIXED-SATELLITE (space-to-Earth) S5.415 MOBILE except aeronautical mobile BROADCASTING- SATELLITE S5.413 S5.416	2 520 – 2 535 FIXED S5.409 S5.411 FIXED-SATELLITE (space-to-Earth) S5.415 MOBILE except aeronautical mobile BROADCASTING- SATELLITE S5.413 S5.416 S5.403 S5.403A
S5.339 S5.403 S5.405 S5.408 S5.412 S5.417 S5.418	S5.339 S5.403	2 535 – 2 655 FIXED S5.409 S5.411 MOBILE except aeronautical mobile BROADCASTING- SATELLITE S5.413 S5.416 S5.339 S5.418

MOD

MHz
2 670 – 3 300

Allocation to Services		
Region 1	Region 2	Region 3
2 670 – 2 690	2 670 – 2 690	2 670 – 2 690
FIXED S5.409 S5.410 S5.411	FIXED S5.409 S5.411	FIXED S5.409 S5.411
MOBILE except aeronautical mobile	FIXED-SATELLITE (Earth-to-space) (space-to-Earth) S5.415	FIXED-SATELLITE (Earth-to-space) S5.415
MOBILE-SATELLITE (Earth-to-space)	MOBILE except aeronautical mobile	MOBILE except aeronautical mobile
Earth Exploration-Satellite (passive)	MOBILE-SATELLITE (Earth-to-space)	MOBILE-SATELLITE (Earth-to-space)
Radio Astronomy	Earth Exploration-Satellite (passive)	Earth Exploration-Satellite (passive)
Space Research (passive)	Radio Astronomy	Radio Astronomy
	Space Research (passive)	Space Research (passive)
MOD S5.149 S5.419 S5.420	MOD S5.149 S5.419 S5.420	MOD S5.149 S5.419 S5.420 S5.420A

ADD S5.420A *Additional allocation:* in Japan, subject to agreement obtained under No. S9.21, the band 2 670 - 2 690 MHz may also be used for the aeronautical mobile-satellite service (Earth-to-space) for operations limited to within its national boundary from 1 January 2000.

MOD S5.422 *Additional allocation:* in Saudi Arabia, Armenia, Azerbaijan, Bahrain, Belarus, Bosnia and Herzegovina, Brunei Darussalam, the Central African Republic, the Congo, Côte d'Ivoire, Cuba, Egypt, the United Arab Emirates, Eritrea, Ethiopia, Gabon, Guinea, Guinea-Bissau, the Islamic Republic of Iran, Iraq, Israel, Jordan, Kazakstan, Lebanon, Malaysia, Mali, Morocco, Mauritania, Moldova, Mongolia, Nigeria, Oman, Uzbekistan, Pakistan, the Philippines, Qatar, Syria, Kyrgyzstan, Romania, Russia, Somalia, Tajikistan, Tunisia, Turkmenistan, Ukraine, Yemen, Yugoslavia, Zaire and Zambia, the band 2 690 - 2 700 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. Such use is limited to equipment in operation by 1 January 1985.

MOD

MHz
2 670 – 3 300

Allocation to Services		
Region 1	Region 2	Region 3
3 100 – 3 300	RADIOLOCATION Earth Exploration-Satellite (active) Space Research (active) MOD S5.149 S5.428	

MOD S5.428

Additional allocation: in Azerbaijan, Bulgaria, Cuba, Kazakstan, Mongolia, Poland, Kyrgyzstan, Romania, Turkmenistan and Ukraine, the band 3 100 - 3 300 MHz is also allocated to the radionavigation service on a primary basis.

MOD S5.429

Additional allocation: in Saudi Arabia, Bahrain, Bangladesh, Brunei Darussalam, China, the Congo, the Republic of Korea, the United Arab Emirates, India, Indonesia, the Islamic Republic of Iran, Iraq, Israel, Japan, Jordan, Kuwait, Lebanon, Libya, Malaysia, Oman, Pakistan, Qatar, Syria, Democratic People's Republic of Korea and Yemen, the band 3 300 - 3 400 MHz is also allocated to the fixed and mobile services on a primary basis. The countries bordering the Mediterranean shall not claim protection for their fixed and mobile services from the radiolocation service.

MOD S5.430

Additional allocation: in Azerbaijan, Bulgaria, Cuba, Mongolia, Poland, Kyrgyzstan, Romania, Turkmenistan and Ukraine, the band 3 300 - 3 400 MHz is also allocated to the radionavigation service on a primary basis.

MOD S5.432

Different category of service: in the Republic of Korea, Indonesia, Japan and Pakistan, the allocation of the band 3 400 - 3 500 MHz to the mobile, except aeronautical mobile, service is on a primary basis (see No. S5.33).

SUP S5.434

MOD S5.437

Additional allocation: in Germany and Norway, the band 4 200 - 4 210 MHz is also allocated to the fixed service on a secondary basis.

MOD S5.439

Additional allocation: in China, the Islamic Republic of Iran and Libya, the band 4 200 - 4 400 MHz is also allocated to the fixed service on a secondary basis.

MOD

MHz
4 500 – 5 470

Allocation to Services		
Region 1	Region 2	Region 3
5 250 – 5 255	EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH S5.447D S5.448 S5.448A	
5 255 – 5 350	EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active) S5.448 S5.448A	

MOD S5.441

The use of the bands 4 500 - 4 800 MHz (space-to-Earth), 6 725 - 7 025 MHz (Earth-to-space) by the fixed-satellite service shall be in accordance with the provisions of Appendix S30B. The use of the bands 10.7 - 10.95 GHz (space-to-Earth), 11.2 - 11.45 GHz (space-to-Earth) and 12.75 - 13.25 GHz (Earth-to-space) by GSO satellite systems in the fixed-satellite service shall be in accordance with the provisions of Appendix S30B. The use of the bands 10.7 - 10.95 GHz (space-to-Earth), 11.2 - 11.45 GHz (space-to-Earth) and 12.75 - 13.25 GHz (Earth-to-space) by non-GSO satellite systems in the fixed-satellite service shall be in accordance with the provisions of Resolution COM5-18.

ADD S5.441A

The use of the bands 10.95 - 11.2 GHz (space-to-Earth), 11.45 - 11.7 GHz (space-to-Earth), 11.7 - 12.2 GHz (space-to-Earth) in Region 2, 12.2 - 12.75 GHz (space-to-Earth) in Region 3, 12.5 - 12.75 GHz (space-to-Earth) in Region 1, 13.75 - 14.5 GHz (Earth-to-space), 17.8 - 18.6 GHz (space-to-Earth), 19.7 - 20.2 GHz (space-to-Earth), 27.5 - 28.6 GHz (Earth-to-space), 29.5 - 30 GHz (Earth-to-space) by non-GSO and GSO satellite systems in the fixed-satellite service is subject to the provisions of Resolution COM5-18. The use of the band 17.8 - 18.1 GHz (space-to-Earth) by non-GSO FSS systems is also subject to the provisions of Resolution COM5-19.

ADD S5.447D

The allocation of the band 5 250 - 5 255 MHz to the space research service on a primary basis is limited to active spaceborne sensors. Other uses of the band by the space research service are on a secondary basis.

MOD S5.448 *Additional allocation:* in Austria, Azerbaijan, Bulgaria, Libya, Mongolia, Kyrgyzstan, Slovakia, the Czech Republic, Romania, Turkmenistan and Ukraine, the band 5 250 - 5 350 MHz is also allocated to the radionavigation service on a primary basis.

ADD S5.448A The use of the frequency band 5 250 - 5 350 MHz by the earth exploration-satellite (active) and space research (active) services shall not constrain the future development and deployment of the radiolocation service.

MOD **MHz**
4 500 – 5 470

Allocation to Services		
Region 1	Region 2	Region 3
5 350 – 5 460	AERONAUTICAL RADIONAVIGATION S5.449 EARTH EXPLORATION-SATELLITE (active) Radiolocation S5.448B	

ADD S5.448B The earth exploration-satellite (active) service operating in the band 5 350 - 5 460 MHz shall not cause harmful interference to, or constrain the use and development of, the aeronautical radionavigation service.

MOD S5.450 *Additional allocation:* in Austria, Azerbaijan, Bulgaria, the Islamic Republic of Iran, Mongolia, Kyrgyzstan, Slovakia, the Czech Republic, Romania, Turkmenistan and Ukraine, the band 5 470 - 5 650 MHz is also allocated to the aeronautical radionavigation service on a primary basis.

MOD S5.453 *Additional allocation:* in Saudi Arabia, Bahrain, Bangladesh, Brunei Darussalam, Cameroon, the Central African Republic, China, the Congo, the Republic of Korea, Egypt, the United Arab Emirates, Gabon, Guinea, India, Indonesia, the Islamic Republic of Iran, Iraq, Israel, Japan, Jordan, Kuwait, Lebanon, Libya, Madagascar, Malaysia, Nigeria, Oman, Pakistan, the Philippines, Qatar, Syria, Democratic People's Republic of Korea, Singapore, Swaziland, Tanzania, Chad, and Yemen, the band 5 650 - 5 850 MHz is also allocated to the fixed and mobile services on a primary basis.

MOD S5.454 *Different category of service:* in Armenia, Azerbaijan, Belarus, Bulgaria, Kazakstan, Mongolia, Uzbekistan, Kyrgyzstan, Russia, Tajikistan, Turkmenistan and Ukraine, the allocation of the band 5 670 - 5 725 MHz to the space research service is on a primary basis (see No. S5.33).

MOD **MHz**
5 580 – 7 450

Allocation to Services		
Region 1	Region 2	Region 3
7 075 – 7 250	FIXED MOBILE S5.458 MOD S5.459 S5.460	

MOD S5.459 *Additional allocation:* in Russia, the frequency bands 7 100 - 7 155 MHz and 7 190 - 7 235 MHz are also allocated to the space operation service (Earth-to-space) on a primary basis, subject to agreement obtained under No. S9.21.

MOD **MHz**
7 450 – 8 175

Allocation to Services		
Region 1	Region 2	Region 3
7 450 - 7 550	FIXED FIXED-SATELLITE (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile S5.461A	
7 550 - 7 750	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile	
7 750 - 7 850	FIXED MOBILE except aeronautical mobile METEOROLOGICAL-SATELLITE (space-to-Earth) S5.461B	
7 850 - 7 900	FIXED MOBILE except aeronautical mobile	

ADD S5.461A The use of the band 7 450 - 7 550 MHz by the meteorological-satellite service (space-to-Earth) is limited to geostationary-satellite systems. Non-geostationary meteorological-satellite systems in this band notified before 30 November 1997 may continue to operate on primary basis until the end of their lifetime.

ADD S5.461B The use of the band 7 750 - 7 850 MHz by the meteorological-satellite service (space-to-Earth) is limited to non-geostationary satellite systems.

MOD

MHz
7 450 - 8 175

Allocation to Services		
Region 1	Region 2	Region 3
8 025 - 8 175	EARTH EXPLORATION-SATELLITE (space-to-Earth) FIXED FIXED-SATELLITE (Earth-to-space) MOBILE ADD S5.462A S5.463	

ADD S5.462A In Regions 1 and 3 (except for Japan), in the band 8 025 - 8 400 MHz, the earth exploration-satellite service using geostationary satellites shall not produce a power flux-density in excess of the following provisional values for angles of arrival (θ), without the consent of the affected administration:

-174 dB(W/m ²) in a 4 kHz band	for	$0^\circ \leq \theta < 5^\circ$
-174 + 0.5 ($\theta - 5$) dB(W/m ²) in a 4 kHz band	for	$5^\circ \leq \theta < 25^\circ$
-164 dB(W/m ²) in a 4 kHz band	for	$25^\circ \leq \theta \leq 90^\circ$

These values are subject to study under Resolution COM5-9.

MOD S5.463 Aircraft stations are not permitted to transmit in the band 8 025 - 8 400 MHz.